day this happened. You'd go look at the boat, I take it, and look at the motor?
A. Uh-huh.
Q. And what would you be looking for? What would you do?
A. Oh, I'd just -- when you say, *"I'm looking at it,"* as what, sort of an owner, or --
Q. Let's say I called you up and said, *"Hey, I represent Cashman,"* or Mr. Rosenthal called you up and said, *"I represent Steve Ramsey, and we've had a problem with this boat, and we want you to go look at it and tell us what you think,"* what would the drill be?
A. I'd check out all of these pieces and find out whether they were bad, at that point. But, I wouldn't know whether they were bad because of a condition that preexisted, or this time in the salt water. So, probably I couldn't do very much with it. It's been damaged a second time, and we cannot separate out the damage before from the damage after, very

easily.
Q. I see. And all these pieces wear out on their own at some point regardless of whether they're emerged in salt water?
A. Perhaps; perhaps.
Q. Nothing lasts forever.
A. Right, most things don't. I can't think of very much.
Q. And let me ask you, if something had shorted out, would there be telltale signs that this was an electrical problem?
A. If something kept shorting out, you could always send it back to Hochstrasser and say, *"Figure out what's happening."*
Q. No, I mean after the fact. Is there a way you could have looked at that motor, and there'd be telltale signs that there was an electrical problem?
A. Yeah. You'd find corrosion someplace. You could pull each part, that is, each piece apart, and test it individually. I don't know where this would get you, though, because we had a second dunking,

a second emersion; whether you could figure out that it had to do with the first emersion or the second emersion. I don't know whether you could find that out.

Let's assume the first time you did everything perfectly. You did exactly what Hochstrasser told us to do. You changed everything. And then we had a second dunking, the same pieces probably would be required to be changed out. You'd go through the same drill the second time, because we had a second sinking. So, you change out everything the second time.

Q. Okay. Let me ask you this -- I know you've read Mr. Ramsey's testimony. The boat stalled out on him as he returned to the barge; did you understand that?

A. Yes.

Q. And then you understand that he worked on the boat a little bit?

A. Yes. Worked on the boat a little, --

Q. Worked on the motor.

A. Tried to get it started, yes.
Q. Yeah, what do you understand that he did?
A. I don't know. He was there working on it. What he actually did, I don't know.
Q. Okay, but at some point he got it started up again?
A. He got it started up again.
Q. Does that lead you to believe one way or the other that it's more likely or less likely that the problem was electrical?
A. I don't know what to make of it, because I don't know what he did.
Q. Well, if something shorts out, would you be able to start it up again?
A. Jiggle a wire, perhaps. I don't know what he did.
Q. How likely would that be?
A. I don't know what he did, whether that was the problem or not.
Q. What I'm trying to --
A. I don't know what the problem is. I can't answer your question.
Q. Okay, let me just ask it in a general sense, then. If an outboard motor stalls

out because of an electrical problem, how likely is it that the motor would then -- you'd be able to get it going again?

MR. ROSENTHAL: Objection to form.

A. If you change out the electrical problem, it'll fix the --

Q. No, no, I don't mean that. I mean, I'm driving my outboard motor back to the barge and it stalls out. I drift back to the barge, and then 5 or 10 minutes later I get the motor going again. How likely is that if it was an electrical problem?

MR. ROSENTHAL: Objection to form.

A. I don't know. I can't answer the question.

Q. What's the problem with the question? I'm looking for your answer on this.

A. Yeah, I don't really -- he can jiggle something, and all of a sudden it makes good contact again.

Q. Would that be for a loose wire?

A. Possibly. I'm thinking the easiest

explanation -- you have a flashlight that doesn't really work -- I've got it, a television clicker, changing channels. It has a couple of batteries in it. And all of a sudden you can't change the channel; it doesn't work. You open it up and you rub the batteries, the end of the batteries; put them back in. And low and behold, like magic, it works again. What have you done? You've changed some resistant values, or jiggling a wire, maybe is a better way of saying it.

But, basically you put back the batteries and you can change the channels. I assume everyone has done this at some time or other.

Q. Sure.

A. And that's the same thing I'm talking about here. He gets in and pushes around something. And low and behold --

Q. But, would you be able to do that with a -- okay, and I understand --

A. I don't know. I really don't know what could have been done. And that's why I

say I can't answer the question. All I can say is, by analogy, indeed, there are conditions I can think of where you just jiggle something, or make better contact, and low and behold it works like magic.

And whether it's the same thing here, if there was, in fact, a loose wire and does something, he pushed the button again, and it starts, I don't know what to make of it.

But, we also have a different condition here. We have something where it's not going into reverse.

Q. What's that indicative of?

A. I don't know. I don't know the problem with it.

Q. Okay.

A. I have no idea what the problem is, but they indicated it could not go in reverse, or when they tried going in reverse it would stall on them.

Q. Okay.

A. And I'd like to believe that these fellows could evaluate and investigate

that sort of problem and find out what it was. It was never done.

Q. Could you define for me generally, just so we get a starting off point, what a short circuit is? I think you used the term, right?

A. Yeah, where something, a live wire goes to ground.

Q. And what happens?

A. You get a spark, or you run down your battery, or the thing just doesn't work because you have an open circuit.

Q. Okay. And just to go back to your analogy with the clicker from the TV, if you had a short circuit, you wouldn't be able to --

A. Oh, no, nothing would happen.

Q. It'd be fried; you'd be out of luck.

A. Well, I don't know whether you'd be out of luck or fried, but your batteries might run down if you have a short circuit.

Q. So if the vessel -- if the motor, rather -- stalled out because of a short

circuit, you wouldn't be able to get it going five minutes later, would you?

A. Unless you pulled the wire away from where it shorted.

Q. Save that, you wouldn't be able to get it going, right?

A. No, it should not. If it shorts, it's going to stay that way.

Q. So, not to beat this over the head, you don't know one way or the other whether there was an electronic problem that caused the skiff to stall?

A. Electric or electronic, no.

Q. And I've heard people say, and I think maybe Mr. Ramsey said it, but I'm not positive so I won't -- that he thought the engine needed air?

A. No, I think he said it needed fuel. He squeezed the bulb.

Q. Thanks. Okay, I didn't --

A. And squeezing the bulb would force gasoline into the engine.

Q. And an engine will stall, and --

A. If you don't get any fuel to it. You can

run out of gasoline in your car and it stalls.

Q. Or you could have a problem with the fuel line and it would stall?

A. Fuel pump, yes.

Q. My idea of equipment is a fork, okay? That's my idea of machinery that I use. Obviously, this sounds obvious, but if the engine isn't getting fuel, it's going to stall out?

A. Correct.

Q. And that's if you don't put fuel in it?

A. Correct.

Q. If the fuel is somehow blocked from getting to the engine?

A. Correct. You have a fuel filter. A fuel filter -- even an automobile has a fuel filter. Or, generally on a diesel engine, if the fuel filters are not changed, the engine will stop.

If you get a clog in the line, the engine will stop. You run out of fuel, engines will stop. There are lots of reasons engines will stop. However,

this one was doing it on a continual basis. We're not talking about just this one time. It was doing that days before, according to Mr. King.

Q. Yeah, Mr. King's testimony was you kind of had to gun it or something. Didn't he say that?

A. He indicated in order to change into reverse, you had to make certain that you kept the engine up to speed, as I remember feeling. You say, *"gun it."* All of this is indicative of an engine that's not in good repair. Something's wrong with it. It should have been taken out of service and repaired.

Q. Okay. I just want to focus on this a little more then. If the idea of fuel needs to get to the engine to keep it running, that's separate from the electrical.

A. Absolutely.

Q. They're two different things.

A. Surely.

Q. So, if you've got a -- I think when I was

like 18, I had a car that you had to keep giving it the gas or it would stall out. That's not an electrical problem?

A. That's not an electrical problem.

Q. That's a fuel pump problem?

A. Or the engine is just not properly maintained, or the engine has rings and they're not seating properly. You don't have enough oil. Lots of things. But, it needed lots of gas in order to keep running. And you could have set the gas line -- that is, getting the fuel to the engine -- up a little higher and you wouldn't have to keep stomping on the starter.

But again, that's indication to me of something that's in poor repair, poor condition for operation. And it's a hazard. All of a sudden you have an automobile that's going to stall on you someplace. Thankfully, you're still here.

And the same thing with Mr. Ramsey. He had something that was not

operating properly and should have been brought in for proper repair.

Q. Mr. Ramsey's testimony that the engine wasn't getting enough fuel, does that lead you to think that it's more likely that it was a fuel issue than electrical?

A. I don't know whether he said --

MR. ROSENTHAL: Objection to form.

A. -- it was not getting the fuel, or whether that's Mr. King who sort of suggests that it did not get fuel.

Q. Wasn't Mr. Ramsey's testimony that he was squeezing the bulb?

A. But, I think Mr. King was also saying you had to keep the speed up when you were changing into reverse.

Q. Right, so put Mr. King aside. Mr. Ramsey's testimony was that he was --

A. He was squeezing the bulb.

Q. -- squeezing the bulb because he didn't think the engine was getting fuel.

A. Right.

Q. Does that lead you to believe that it's

more likely -- and I understand your testimony; there's a problem with the engine. I'm just trying to narrow it down more.

Does his testimony, the plaintiff's testimony, make it more likely in your opinion that the problem with the outboard motor was a fuel problem versus an electrical problem?

A. Could have been, yes.

MR. ROSENTHAL: Objection to the form.

A. Yes, I mean, when you're not getting fuel, there's a problem with the fuel pump, fuel lines, fuel filter. I don't think running out of fuel is the problem. I'd like to believe that that's the first thing; they make certain they have enough fuel.

Q. Right.

A. So, something's wrong with the fuel line, carburation, whatever. Perhaps not changed out properly. I don't know the answer to that. But, that could have all

been checked when they were having all these problems, and before April 5th. In other words from the time March 5th, I think when the sinking occurred, and was returned thereafter, to April 5th, there was enough time to figure out what to do with it; send it back to Hochstrasser and have them fix it.

Q. You have also opined that the skiff was underpowered, --

A. Yes.

Q. -- for the swift current at the location. What do you base that opinion on?

A. Well, firstly we have high currents. Let's get back to what he's talking about before. The question is, how high a current do we have? Well, if you start looking at currents that are anywhere from 6 to 8 to 12 knots, and when one starts talking about 12 knots, that is huge. Deep down, I never thought it was 12 knots.

But then to find out what it was since that's testimony and I had no

better information, then -- when I say, *"better information,"* off the top of my head or personal knowledge of Barnegat Bay -- I went to the Web to try and find out what conditions, current conditions might be there. I could get nowhere with that. I was not able to find anything.

So the next answer is, I go back to, *"Let's find out from testimony."* Testimony is 6, 8, 10, 12; big numbers.

And two, one goes to either Corp of Engineers or Coast Guard, and you see wind conditions and sea conditions. Someone talks in terms of 4 or 5 knots. Therefore, I assume that that may be someone who's testifying or filling out a Coast Guard and says that this is the number, 4 or 5 knots. And that starts to sound more reasonable.

So I then looked, and said, *"Well, let's say 4 or 5 knots, and even 6 knots."* And what is that in terms of feet per minute? Well, 6 knots is about 10 feet per minute. And knowing the

speed, that is the velocity, know
something about the size of the v
can determine something about for
current forces, pushing on the ve

And there are little formulas for doing that, but you can come out with somewhere around 1,000 pounds pushing on this vessel, if you have somewhere around 10 feet per second, or 6 knots, pushing against the vessel.

And where would this be pushing on the vessel? Well, remember, this fellow is trying to back up against the current. When I say, *"this fellow,"* Ramsey.

Q. Right.

A. He was trying to back up and get away from the Wood 1 to bring the vessel alongside the Wood 1. And he's trying to back up into this current, and you just don't have enough power to back this boat into the current. And what happened, he got pushed around and pushed around to starboard, and pushed around -- sorry --

to port, because his port side went under the rake of the barge. And once his port side got caught on the rake of the barge, he had no power in his vessel. The vessel was doomed, as I would say. The river, I mean the currents, pushed the starboard side down and flooded the boat. And at that point he decided to take his big leap, and he safely got over to a tire.

If he did not get over to the tire, I think we might not have a case, this kind of a case. We might have a death case, because he could have been brought underneath the rake of the barge, and we might not hear from Mr. Ramsey again.

So, he was one lucky maritime type that he made his escape.

Q. Now, some of that deals with after the vessel had stalled.

A. Oh, yes.

Q. But, your opinion is that even without the vessel stalling out, the motor's too

small?

A. Yes, the motor's too small to work in that current. Now, you can work, obviously, if it's slack current. In other words, slack tide, no current, you can operate this vessel. There's no problem with that at all. It's when you try to back up against something that's a large current, then you have problems.

And I use the same analogy, or the same type engineering approach or analysis on the Mississippi River, or rivers where there's current. A towboat coming down river, in my opinion, has to have the ability to stop his tow, and hold his position. Stopping a tow and holding a position means that basically you have to be in a position to back up. When I say, *"back up,"* to hold your position against the river current.

And I've done these calculations before in determining whether vessels are underpowered or not. And I'm using the same analogy here. You have a vessel

that's being caught with a current coming against its stern. Can it back up against the current? And I find that it cannot.

Q. So, how exactly do you go about making the calculation? Is there a book somewhere that tells you?

A. Engineering first principles. You have to know something about the size of the stern. And if one assumes that somewhere around 5 feet wide and 2 feet deep, you have 10 square feet.

And you have the speed of the current. And there's some little formula that gives you the force, --

Q. Do you know the formula off the top of your head?

A. Sure. Some coefficient times 1.99 over two.

Q. Why 1.99?

A. You take the weight of salt water, which is 64 pounds per cubic foot, and divide it by gravity, 32.2, and you come out with 1.99.